THE CLAIMS

I claim:

1. An acid-stabilized calcium carbonate slurry for use in making acid paper, comprising:

water, calcium carbonate, and an acid-stabilizer selected from a group consisting of a water soluble calcium salt a weak acid, a chelating agent, a mixture of a water soluble calcium salt and a weak acid, a mixture of a water soluble calcium salt and a chelating agent wherein the stablizer is present in an amount sufficient to provide an aqueous calcium carbonate slurry having an increased calcium ion concentration and a pH of less than 7.

2. The acid-stabilized calcium carbonate slurry of claim 1, wherein the calcium carbonate is present in an amount of from about 1 to about 40 percent by weight.

3. The acid-stabilized calcium carbonate slurry of Claim 1, wherein the calcium carbonate is precipitated calcium carbonate.

4. The acid-stabilized calcium carbonate slurry of Claim 1, wherein acid-stabilizer is a water soluble calcium salt present in an amount sufficient to provide a calcium ion concentration of from about 1 millimolar to about 5 molar.

5. The acid-stabilized calcium carbonate slurry of Claim 4, wherein the water soluble calcium salt is present in an amount sufficient to provide a calcium ion concentration of from about 1 to about 120 millimolar.

6. The acid-stabilized calcium carbonate slurry of Claim 4, wherein the calcium salt is calcium sulfate, calcium

acetate, calcium nitrate, calcium citrate, a calcium halide, or a mixture thereof.

7. The acid-stabilized calcium carbonate slurry of Claim 6, wherein the calcium halide is calcium chloride.

8. The acid-stabilized calcium carbonate slurry of Claim 1, wherein the acid-stabilizer is a weak acid present in an amount sufficient to provide a weak acid concentration of from about 0.1 to about 1000 millimolar.

9. The acid-stabilized calcium carbonate slurry of Claim 8, wherein the weak acid is added in an amount sufficient to provide a weak acid concentration of from about 0.2 to about 100 millimolar.

10. The acid-stabilized calcium carbonate slurry of Claim 8, wherein the acid-stabilizer further comprises a water soluble calcium salt in an amount sufficient to provide a calcium ion concentration of from about 1 millimolar to about 5 molar.

11. The acid-stabilized calcium carbonate slurry of Claim 10, wherein the water soluble calcium salt is present in an amount sufficient to provide a calcium ion concentration of from about 1 to about 120 millimolar.

12. The acid-stabilized calcium carbonate slurry of Claim 8, wherein the weak acid is carbonic acid, phosphoric acid, sulfurous acid, or a carboxylic acid.

13. The acid-stabilized calcium carbonate slurry of Claim 1, wherein the acid-stabilizer comprises a water soluble calcium salt in an amount sufficient to provide a calcium ion concentration of from about 1 millimolar to about 5 molar and a

chelating agent in a concentration of from about 0.01 to about 1000 millimolar.

14. The acid-stabilized calcium carbonate slurry of Claim 13, wherein the water soluble calcium salt is present in an amount sufficient to provide a calcium ion concentration of from about 1 to about 120 millimolar and the chelating agent is present in a concentration of from about 0.1 to about 100 millimolar.

15. The acid-stabilized calcium carbonate slurry of Claim 13, wherein the chelating agent is a polycarboxylate.

16. The acid-stabilized calcium carbonate slurry of Claim 15, wherein the polycarboxylate is sodium ethylenediaminetetraacetic acid (EDTA) or sodium polyacrylate.

17. The acid-stabilized calcium carbonate slurry of Claim 1, wherein the acid-stabilizer is a weak acid capable of chelating calcium ion, present in a concentration of from about 0.001 to about 1000 millimolar.

18. The acid-stabilized calcium carbonate slurry of Claim 17, wherein the weak acid is present in a concentration of from about 0.01 to about 100 millimolar.

19. The acid-stabilized calcium carbonate slurry of Claim 17, wherein the weak acid is a polycarboxylic acid, polyacrylic acid, sulfonic acid, polyphosphonic acid, or a compound containing a phosphonic acid.

20. The acid-stabilized calcium carbonate slurry of Claim 19, wherein the weak acid is ethylenediaminetetraacetic acid (EDTA), nitrilotriacetic acid (NTA), diethylenetriamine-

pentaacetic acid (DTPA), or nitrilotri(methylene)triphosphonic acid.

21. A method of forming a filled paper, comprising adding the acid-stabilized calcium carbonate slurry of Claim 1 to a papermaking pulp in a process for making acid paper; and forming a filled paper by said process.

22. A method for making an acid-stabilized calcium carbonate slurry having a pH of less than 7, which comprises: forming a slurry comprising water, calcium carbonate, and a acid-stabilizer selected from a group consisting of a water soluble calcium salt, a weak acid, a chelating agent, a mixture of a water soluble calcium salt and a weak acid, a mixture of a water soluble calcium salt and a chelating agent wherein the stabilizer is present in an amount sufficient to provide an aqueous calcium carbonate slurry having an increased calcium ion concentration an a pH of less than 7.

23. The method of Claim 22, further comprising first carbonating an aqueous slurry of calcium hydroxide to form a precipitated calcium carbonate slurry.

24. A filled acid paper, comprising a filler produced in accordance with the method of Claim 22.